

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

54.5 AL 11 5.7

LIBRARY
RECEIVED
★ OCT 1 1940 ★
U.S. Department of Agriculture

LABELING OF PARADICHLOROBENZENE PREPARATIONS
FOR THE CONTROL OF CLOTHES MOTHS (Rev.)

Paradichlorobenzene preparations intended for use for the control of clothes moths or other insects are subject to the provisions of the Federal insecticide act if shipped in interstate commerce, exported from or imported into the United States, or sold in the District of Columbia or in any territory of the United States. Under section 8 of that act, the labeling of such a product is prohibited from bearing any statement, design or device which is false or misleading in any particular, and if the preparation contains any inert substance its label must bear an ingredient statement in the proper form.

Insecticidal Action

Paradichlorobenzene is slowly volatile at ordinary temperature and acts as a gas (fumigant) in killing moths but does not repel them. Its effectiveness against moths depends mainly on three factors; the tightness and contents of the space treated, the length of exposure, and the amount of gas present. The first two conditions can readily be controlled, but the amount of gas given off is affected by several factors, the most important one being temperature. At temperatures of 70° F. and above, paradichlorobenzene crystals, when exposed to air, vaporize rather rapidly and confined air at this temperature will hold enough of the gas to kill moths. At temperatures considerably below 70° F., the confined air may not hold enough of the gas to be effective, but the limit has not been accurately determined.

The form in which the paradichlorobenzene is used (fine crystals, lumps, or cakes), the surface exposed to the air and circulation of the air, also greatly influence the rate of gas production. Other conditions being equal, the amount of gas given off in a definite period varies directly with the surface of the paradichlorobenzene exposed.

Under ordinary conditions, in tight closets, trunks, and other tight containers, where the gas is freely given off, a dosage of 1 pound of paradichlorobenzene crystals to 100 cubic feet of confined space should be effective. In an absolutely air-tight chamber at a temperature of 77° F., 1/2 pound of paradichlorobenzene will saturate 1,000 cubic feet of air but this dosage would not be satisfactory under usual household conditions.

The length of exposure necessary to kill moth larvae varies with the temperature, the concentration of the gas, and the age of the larvae, but at least three days should be allowed. If the form of the paradichlorobenzene, or its container, is such that the evolution of the gas is retarded, a greater dosage may be necessary, but this can be determined by actual tests only.

Deodorant Action

When used as a deodorant, paradichlorobenzene covers or overcomes many objectionable odors with its own rather pervasive odor. It does not destroy or prevent odors nor is it of value in purifying or freshening the air.

Directions for Use.

The label and directions for these preparations should clearly cover the following points:

1. The use of the preparation should be restricted to tight containers where sufficient concentration of the gas can be maintained or directions provided for sealing the openings.

2. A dosage that will be effective should be recommended. This dosage should be a definite number of ounces, pounds or cakes (depending on the form of the material) to a specified number of cubic feet of tightly confined space.

3. It should not be recommended as a protection against moths for furniture, upholstery, rugs, or carpets, unless the directions for use provide that the articles will be subjected to an effective dosage in tightly confined space. Merely placing paradichlorobenzene crystals or cakes on rugs and carpets, or in and around upholstery, is not a protection against moths. Provisions must be made to tightly enclose the treated articles and submit them to an adequate concentration of the gas. Paradichlorobenzene is not a repellent for moths nor will it drive away such insects as flies, roaches, and ants.

Unwarranted Claims

Such claims as "Moth Repellent," "Moth Proofer," "Drives away moths and insects," "Drives out moths, roaches, flies, etc." are unwarranted and should not be made.

It should not be recommended for the control of moths in upholstery or furniture, unless the directions provide for sufficient dosage, and use in such a manner that the gas will be confined.

It should not be recommended for destroying or preventing odors or for overcoming all odors.

Paradichlorobenzene has been shown by extensive bacteriological tests to be ineffective as a disinfectant, either when used as a fumigant or in the presence of moisture. It should not be recommended as a disinfectant or germicide; for the control or prevention of diseases, or to purify the air.

Ingredient Statement

If a preparation is composed entirely of paradichlorobenzene, it will contain no inert ingredients and no ingredient statement on the label will be necessary. On such preparations a statement "Active Ingredients 100%" is permissible but the claim "100% Active" is objectionable as it may be interpreted to mean 100% effective. If any other ingredient is added, it will be necessary for the manufacturer to determine whether this ingredient is active or inert and, if it is inert, an ingredient statement will be required. Most of the essential oils frequently used in these preparations, are active against moths.

Insecticide Division

(1.4 F132LP)
of Food and drug admin.

December 1, 1931.

Revised August 1, 1940.

by Agric Mktg Serv.

